April 11, 2025

Marlene Dortch
Secretary
Federal Communications Commission
45 L Street NE
Washington, DC 20554

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of Public Notice "In re: Delete, Delete, Delete"	))))	GN Docket No. 25-133

COMMENTS OF THE
COMMERCIAL SPACE FEDERATION

Dear Ms. Dortch:

The Commercial Space Federation (CSF) is the voice of the U.S. commercial space industry, representing the nation's leading launch and reentry service providers, satellite operators, in-space servicing, assembly, and manufacturing (ISAM) providers, commercial space habitats, and spaceports. CSF thanks the Federal Communications Commission (FCC) for the opportunity to comment on the "In re: Delete, Delete, Delete" Public Notice (GN Docket No. 25-133).

Overly burdensome and duplicative U.S. regulations on the commercial space industry are a major barrier to industry growth and development. CSF supports clear, predictable, scalable, and science-based regulatory regimes that serve the national interest – for instance, ensuring that U.S. commercial space launch providers and satellite operators can continually innovate to meet consumer needs and effectively compete in international markets. However, the current state of U.S. commercial space oversight features multiple regulating agencies – some of which reach for regulatory authorities outside of their jurisdictions – unclear pathways to authorizing innovative in-space capabilities and services, and conflicting or duplicative rules promulgated by different agencies. Worse, the rules often only tell half of the story, as operators who propose to comply with those rules still face a gauntlet of case-by-case assessments during the licensing process that invite contention, delay, and surprise conditions.

The FCC serves an essential role in the success of the U.S. space industry. Efficient and transparent satellite and spectrum licensing proceedings are critical for facilitating the safe and sustainable growth of the space economy. Sufficient spectrum must be made available to account for the rapid growth trajectory of the industry, and the FCC and U.S. government must

ensure that the environment for spectrum use fosters space industry innovation and competition while protecting against harmful interference for space operations.

CSF thanks FCC Chairman Brendan Carr and President Trump for seeking to unleash prosperity in the U.S. commercial space industry through this Public Notice and other efforts to reduce regulatory burdens. As international competitors such as the People's Republic of China invest heavily into their space programs without restrictions, now is the time to empower the U.S. commercial space industry to succeed through the removal of costly, unnecessary, and duplicative regulations and processes.

The recommendations below would streamline the FCC's spectrum licensing processes for space systems, clarify the Commission's roles and responsibilities relating to orbital debris mitigation, and provide regulatory certainty for innovative space activities.

Reform Spectrum Licensing

The FCC can best support the commercial space industry through a fundamental shift away from "command-and-control" and "rule-by-condition" regulation towards the sort of pro-innovation, flexible, and efficient regulatory frameworks that the Chairman has successfully championed for the terrestrial wireless industry. Doing so would provide greater clarity and predictability necessary to finance, design, build, and deploy innovative space-based services while achieving appropriate safeguards, such as mitigating orbital debris.

The FCC can take the following steps to immediately upgrade its satellite spectrum policies and internal processes consistent with the directives of the President's recent Executive Orders, the Commission's statutory mandate, and Chairman Carr's pro-innovation agenda:

- Delete long-form legal and technical narratives in space station and Earth station applications by permitting operators to self-certify compliance with Commission rules;
- Delete case-by-case reviews for most applications by establishing a default presumption that a space station or earth station license application that complies with Commission rules would serve the public interest, convenience, and necessity and should be granted;
- Delete the practice of imposing bespoke or duplicative conditions on space station and Earth station licenses, except as necessary to address waivers of the Commission's rules;
- Delete open-ended licensing proceedings and regulatory gamesmanship by adopting firm "shot clocks" for staff to make space station and Earth station licensing determinations, which would facilitate more efficient processing, reduce risk held by operators seeking a license, and provide greater regulatory clarity to industry.

The FCC can further improve its processes by eliminating procedural and technical rules that delay space and Earth station processing and needlessly restrict efficient and intensive use of spectrum:

- Delete the need for prior Commission approval for beneficial satellite system upgrades by expanding Section 25.118 to permit operators to modify their systems on a notification basis without prior Commission approval where the modification continues to comply with Commission rules and would not cause harmful interference to other systems or significantly increase collision risk;

- Delete time-consuming and paperwork-intensive Earth station pre-coordination and individual licensing requirements in bands allocated on a co-primary basis between terrestrial and space services in bands (i.e., above 24 GHz) in favor of database-assisted self-coordination and "light-licensing";

- Delete restrictions on co-primary Fixed-Satellite Service allocations in Section 2.106 and 25.202(a)(1) that unduly limit efficient and intensive use of spectrum, including but not limited to restrictions that limit operations to geostationary orbit (GSO) space stations (US164, NG535A), feeder links (US359, NG58(ii), NG166, NG535A), individually licensed earth stations (NG57), or minimum antenna diameter (US356);

- Delete the need to attain duplicate approvals for the same bands for launch operations due to Part 26 limitations on use of associated frequencies to Telemetry, Tracking, & Control (TT&C) rather than accounting for audio and video transmission often necessary for these limited duration operations.

More broadly, the Commission should reexamine satellite and space regulations/rules that may unduly penalize U.S. companies or companies that seek licensing in the U.S. Such rules threaten America's leadership in space innovation and deployment. By maintaining arbitrary rules that penalize or slow down U.S. companies and licensees, the U.S. risks ceding ground to foreign competitors who operate under more flexible regulatory regimes. Rules that hold licensees/companies with market access to light-touch requirements, while holding those with space station licenses to a higher standard, serve to slow down U.S. companies seeking to innovate and deter other companies from seeking a U.S. license. This hampers American leadership in space and costs U.S. companies both in time lost complying with unnecessary regulations and capital costs as companies work to comply with such regulations.

CSF recommends that the FCC adopt a flexible approach to spectrum licensing for commercial space stations that accounts for the new, varied, and as-yet undetermined activities that could occur. Overly limiting or requiring separate licenses for each individual use case would inhibit innovation, and operators will need flexibility in allocating resources to respond to changing situations on-orbit and to meet customer demand. Additional reforms to consider include permitting multi-launch authorizations and automating the frequency review process.

Future activities, such as in-space mobility services, may include the provision of services across multiple orbital domains. These services may occur as the result of customer requests that were unforeseen at the time of the original FCC license and may not have been planned in advance, such as suborbital spaceflight companies with differing licensing needs. Currently, spacecraft are typically licensed to operate in a single orbital domain such as low-Earth orbit (LEO). To

account for such scenarios, CSF recommends that the FCC open a deterministic licensing path for such commercial spacecraft and activities that occur in LEO, medium-Earth orbit (MEO), geostationary orbit (GEO), high-Earth orbit (HEO), and transfer orbits.

The "pre-coordination" and coordination processes for commercial space and Earth station applications that operate in spectrum bands shared by Federal government operators are relics of a bygone era and are ripe for reform. First, "pre-coordination" by commercial operators before filing an application should no longer be encouraged or required. This process is not clearly defined in statute or regulation or even any detailed written agency guidance. No specific expected starting point is defined and there is no point at which pre-coordination is officially concluded or formal documentation issued demonstrating that a system has been "pre-coordinated." The formal coordination process that the FCC itself initiates while license applications are under consideration could also be improved. For example, the Space Bureau should send application materials for coordination earlier in the process–ideally at the public notice stage–and should include all the materials filed by the applicant. Moreover, the FCC should establish criteria for acceptable license conditions that may be proposed by the National Telecommunications and Information Administration (NTIA) during the coordination process to prevent the automatic addition of conditions to the license that are insufficiently justified or overly burdensome on the applicant.

The FCC must also ensure that sufficient spectrum is available for commercial space activities and account for the rapid growth trajectory of the industry. The FCC, and the U.S. government as a whole, should be proactive in maintaining an environment for spectrum use that fosters innovation and competition, safeguarding existing commercial satellite spectrum allocations, allocating new spectrum bands where needed, and protecting space operators from harmful interference. The U.S. government, for instance, must protect the "X-band" (8025-8400 MHz) used by commercial Earth observation satellites to downlink critical data. In addition, the government should take steps to affirm broader commercial use of spectrum allocated to Space Research Services (SRS) and Space Operation Services (SOS) or reallocate a portion of those bands solely for commercial use. It is in the U.S. government's best interest to preserve and safeguard such spectrum access, as commercial services have played a demonstrably pivotal role in supporting U.S. national security and economic growth.

Clarify Orbital Debris Requirements

CSF strongly supports U.S. government efforts to mitigate the proliferation of orbital debris and maintain a sustainable space resources, and CSF's members demonstrate that support through practical and operational approaches to space safety. Effective oversight of orbital debris would consist of unified, consolidated government action in which a single federal agency is designated to develop technical standards in consultation with industry and uniformly apply any rules in a clear, consistent, and equitable manner.

However, CSF remains concerned that the U.S. government's current fractionalized approach to orbital debris mitigation is unpredictable, redundant, and unnecessarily burdensome on operators. Currently, three agencies are either regulating or seeking to regulate orbital debris – the FCC, the Office of Space Commerce, and the Federal Aviation Administration (FAA) – with

inconsistent requirements and timelines associated with each respective agency's rules. Despite the U.S. government's stated desire for a "whole of government" approach to mitigating orbital debris, in practice commercial operators must contend with a multi-agency framework with little regulatory consistency, coordination, or coherence.

The FCC should defer to agencies with technical expertise, such as the National Aeronautics and Space Administration (NASA), consult the commercial space industry throughout the process, and adhere to a coordinated role in orbital debris and space safety. Doing so would ensure that any orbital debris rules are equitable, evidence-based, and harmonized with existing practices and requirements. The FCC should not unilaterally impose new rules on the industry without agreement and harmonization in requirements among relevant federal agencies and the industry.

Until a more unified U.S. government approach is formed, CSF recommends that any orbital debris requirements promulgated by the FCC be coordinated with other federal agencies regulating commercial space to ensure that they are informed by industry standards and best practices and not duplicative, redundant, or incompatible with other agencies' requirements. The FCC should seek to further reduce the overall regulatory burdens on industry.

CSF strongly recommends that the FCC transition from a license-specific conditions-based regulatory framework for orbital debris mitigation and instead adopt rules that can be applied consistently across operators. The current conditions-based framework has resulted in regulatory confusion, inconsistency, and unequal treatment for operators. To best support orbital debris mitigation and increase regulatory certainty, the FCC should apply only technically informed rules that are consistent for all similarly situated operators, include achievable performance and science-based metrics, and are based on industry standards and best practices.

CSF also recommends that the Space Bureau cease imposing orbital debris-related requirements on space station applicants in the licensing process that have not been adopted in regulation and are not based in science. The Space Bureau consistently requires space station license applicants who apply for constellations of satellites to submit information about the aggregate collision and re-entry risk associated with their systems. The FCC's Part 25 regulations focus on single satellite risk metrics, consistent with the NASA Orbital Debris Mitigation Standard Practices (ODMSP), and do not set forth any requirements with respect to aggregate risks. The Bureau should cease its practice of requesting this information and should not base conditions upon it.

The Bureau should also cease its practice of withholding authorization for the full number of satellites requested in an application–including for constellations of as few as four satellites of satellites–conditioning those licenses on making modifications that find no basis in Commission rules. The Bureau then conditions approval of additional satellites on the operator's adoption of design modifications intended to improve the same aggregate risk metrics that are nowhere specified in the regulations.[1] This puts applicants in the very difficult position of trying to make

[1] *See, e.g.*, Albedo Space Corp., Stamp Grant, ICFS File Nos. SAT-LOA-20240906-00198, SAT-AMD-20241120-00265 at Condition 20 (Jan. 8, 2025); *The Tomorrow Companies, Inc. Application to construct, deploy, and operate an NGSO satellite system for weather monitoring,* Order, ICFS File Nos. SAT-LOA-20221201-00167, SAT-AMD-20230406-00075 at ¶ 4 and Attachment to Grant, Condition 13 (rel. May 17, 2024); *Planet Labs PBC Application for Modification of License*, Order, ICFS File Nos. SAT-LOA-20220920-00112, SAT-AMD-20231013-00251 at

design changes without any clarity on what design improvements will be sufficient to obtain authorization for the remaining satellites they have requested. This practice creates an untenable burden on applicants and unnecessarily increases the paperwork necessary to license a satellite constellation. Collision and reentry risk metrics are outside the FCC's expertise and, if adopted at all, should be done through notice and comment rulemaking that establishes clear thresholds that all similarly situated operators must meet, not inconsistently applied in the licensing process.

Improve Launch Frequency Coordination Processes

FCC applications are routed to NTIA to facilitate review and input by the federal agencies, principally the U.S. Department of Defense (DoD), NASA and NOAA, to evaluate potential interference between federal and non-federal users. Unfortunately, this process remains a black box that too often results in delays and surprises that can threaten commercial space operations. The Commission should establish streamlined processes that ensure that federal agency review is as fast, efficient, and certain for applicants as possible while protecting important federal missions.

Delete Reliance on Serial Ground Station Licensing

There is a three-step process for a U.S. satellite to be licensed at the individual ground station level. First, the operations must be licensed with the FCC. The FCC then files the licensed activity with the International Telecommunication Union (ITU). A ground station must then apply to support a specific satellite in the country where it is located once that satellite is registered with the ITU. In most cases, this process takes place serially, causing month- to year-long delays to go from the start of the process to operation.

The ground station licensing process could be improved immediately with some key changes below.

- The FCC allows some commercial satellite operations to be filed with the ITU before the license is complete. The FCC should extend this to experimental license applications, allowing the overall process to begin sooner.
- The Departments of State and Commerce should advocate at the ITU level and at the individual country level to increase the ground licensing process on behalf of U.S. operators. The Departments should further create an advocacy channel for satellite operators seeking ground station licenses in specific countries to help resolve issues. Key ground station countries include Australia, Bharain, Canada, Chile, Mauritius, Norway, Singapore, South Africa, South Korea, and Spain.

Delete CRSRA Determination Requirements

Attachment to Grant, Condition 3 (rel. May 10, 2024); Planet Labs PBC, Stamp Grant, ICFS File No. SAT-MOD-20220421-00042 at Condition 8 (reissued Sept. 28, 2023); *Globalstar Licensee LLC Application for Modification of Non-Geostationary Mobile Satellite Service System Authorization*, Order and Authorization, ICFS File No. SAT-MOD-20230804-00192 at ¶¶ 1, 18 (rel. Aug. 16, 2024).

Commercial remote sensing licensing is administered through CRSRA in the Office of Space Commerce. A license is not required for non-remote sensing activity. However, when a satellite operator applies for spectrum from the FCC, the FCC "recommends" applicants to provide a determination from NOAA for the satellite to be licensed (either the NOAA Part 960 license or a waiver letter).[2] Although this is not a requirement, licensee experience is that the FCC treats it as a gating condition for the grant of FCC licenses.

The NOAA license determination should not be treated as a requirement from the FCC process and a waiver letter from NOAA should not be required for an FCC license to proceed if the system is not subject to a NOAA license. These are independent licensing determinations and should be maintained separately by the agency of jurisdiction.

Support Innovative Space Activities

CSF remains concerned about the FCC's attempts to oversee non-spectrum related space matters, including those relating to in-space servicing, assembly, and manufacturing (ISAM) operations.[3] By streamlining its licensing processes in the manner described previously, ensuring the ready availability of protected spectrum for non-governmental space operations, and deferring to other expert federal agencies on all other aspects of space operations, the FCC would enable continued growth and innovation in the industry.

CSF encourages the FCC to support designating the U.S. Department of Commerce Office of Space Commerce (OSC) as the lead agency authorizing and supervising space activities not explicitly regulated by other agencies, consistent with U.S. international obligations, and OSC as the lead agency in any interagency efforts relating to such activities. Further, the FCC should not seek to oversee or issue rules relating to such activities. Doing so would likely result in duplicative, conflicting, and confusing authorization processes that would inhibit industry growth and innovation.

Conclusion

Thank you for your consideration of the foregoing recommendations. CSF looks forward to continuing to work with the FCC to streamline licensing requirements, protect space spectrum allocations, and reduce regulatory burdens imposed on industry.

Sincerely,

David Cavossa
President
Commercial Space Federation

[2] See FCC Part 5 Experimental and Special Temporary Authority (STA) Space Station Application Checklist.
[3] See "Space Innovation; Facilitating Capabilities for In-Space Servicing, Assembly, and Manufacturing" (IB Docket Nos 22-271, 22-272, FCC 24-21; FR ID 207048).